

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q64273

Akira ICHIKAWA, et al.

Appln. No.: 09/830,605

Group Art Unit: 1771

Confirmation No.: 9350

Examiner: Victor S. CHANG

Filed: April 30, 2001

For: ADHESIVE LABEL

**SUBMISSION OF APPEAL BRIEF**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Submitted herewith please find an Appeal Brief. The statutory fee of \$500.00 is being charged to Deposit Account No. 19-4880 via the EFS Payment Screen. The USPTO is directed and authorized to charge all required fees, but not including the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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WASHINGTON OFFICE  
23373  
CUSTOMER NUMBER

Date: April 16, 2007

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**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

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Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.37, Appellant submits the following:

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No.: 09/830,605

Attorney Docket No.: Q64273

**I. REAL PARTY IN INTEREST**

The real party in interest is Lintec Corporation.

**II. RELATED APPEALS AND INTERFERENCES**

Appellants, Appellants' legal representative and the Assignee of this application are not aware of any other appeals or interferences that will directly affect, or be affected by, or have a bearing on the Board's decision in the pending appeal.

**III. STATUS OF CLAIMS**

Claims 1, 2, and 4-14 are pending.

This is an appeal from the Examiner's sole rejection of claims 1, 2, and 4-14 under 35 U.S.C. § 103(a) based on Tanimura et al. (U.S. Patent No. 6,065,701) (hereinafter "Tanimura") in view of Applicants' alleged admission.

A copy of the pending claims 1, 2, and 4-14 on appeal is set forth in the attached Claims Appendix.

**IV. STATUS OF AMENDMENTS**

The Request for Continued Examination (RCE) filed on January 31, 2006, which requested entry of the Amendment filed on December 30, 2005 is the last response with amendments to the claims of the application which was entered. The Amendment filed on December 15, 2006 was not entered, according to the Advisory Action of January 8, 2007. There are no outstanding amendments to the claims or to the specification in the present application.

**V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

The present invention relates to an adhesive label, and more particularly relates to a contactless data carrier adhesive label. The present invention may be advantageously applied to a contactless data carrier or a radio frequency identification card in the form of an adhesive label. See page 1, lines 4-9 of the present specification.

The object of the present invention is to provide an adhesive label-type contactless data carrier wherein the irregular or uneven structure - which is typically formed on the surface of a contactless data carrier as a result of the presence of three-dimensional electronic components on a flat circuit substrate - is not present. The structure can be made thinner, and excellent printability is obtained. See page 2, lines 26-32 of the present specification.

The present invention achieves this by providing an adhesive label that comprises a circuit substrate, electronic components formed on one surface of the circuit substrate, and an adhesive layer on the electronic components to be applied to an article, which are sequentially laminated. See page 3, lines 1-6 of the present specification.

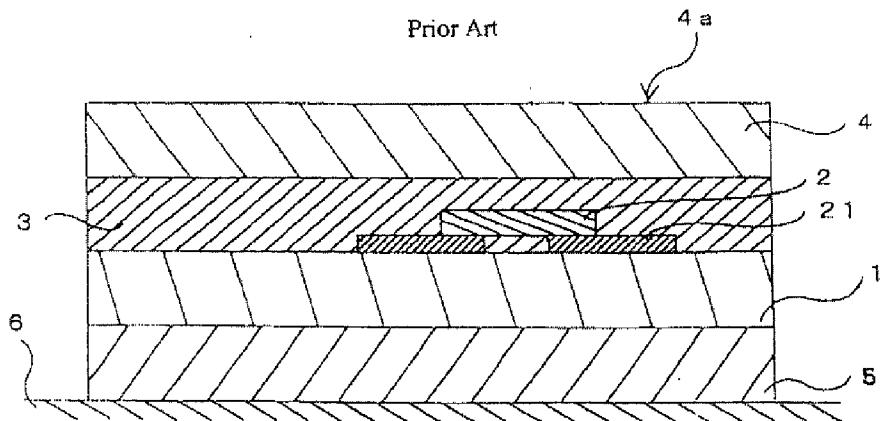
Appellant notes that a contactless data carrier system includes a data carrier (a transponder) and an interrogator, and data transmission is made without contact between the data carrier and the interrogator. A contactless data carrier system that is in the form of an adhesive label may be applied to the management of articles to be distributed by sticking an adhesive label-type data carrier or transponder on a surface of an article, such as personal baggage, which is to be distributed. The contactless data carrier system that is in the form of an adhesive label may also be applied to the management of factory automation by sticking an adhesive label-type

data carrier or transponder on a surface of a machine component in an assembly-line operation.

See page 1, lines 11-21 of the present specification.

As shown in the Figure below, which corresponds to the state of the prior art and to Figure 3 in the present application, a typical conventionally-used adhesive label-type data carrier has a structure such that a contactless data carrier element mounted on a surface of a circuit substrate **1** is sealed with a resin layer **3**, and a surface layer **4** is laminated on the resin layer **3**. The contactless data carrier element contains, for example, an electronic circuit **21** and electronic components **2** such as an IC chip, a capacitor, a battery and so on. In general, an entire contactless data carrier element is formed on one side of the circuit substrate **1**, as shown in Figure 3. Alternatively, the contactless data carrier element may be prepared by separately forming a part of an electric circuit on each side of the circuit substrate **1**, and connecting one to the other via a through-hole, to thus integrate the separately formed parts into a sole contactless data carrier element. See the paragraph bridging pages 1-2 of the present specification.

FIG. 3



As further shown in Figure 3, an adhesive layer 5 is provided on a reverse side of the circuit substrate 1 of the adhesive label-type data carrier. The adhesive label-type data carrier is temporarily applied on a release sheet, which is not shown. When used, the adhesive label-type data carrier is peeled from the release sheet and is applied to a surface of an article 6. In such an adhesive label, a mark for identification (for example) is generally printed on a label surface 4a, i.e., a surface 4a of the surface layer 4. See page 2, lines 8-16 of the present specification.

In the prior art, the electronic components forming the contactless data carrier element are thicker than the electric circuit, and therefore an irregular or uneven structure is formed on one surface of the circuit substrate 1. This is disadvantageous because the irregular or uneven structure affects the surface 4a of the surface layer 4, and a pin hole may occur. See page 2, lines 17-23 of the present specification.

Independent claim 1 recites an adhesive label comprising (1) a circuit substrate; (2) an entire data carrier element for a contactless data carrier system containing an IC chip. The data carrier being is carried on at least one surface of said circuit substrate, and the IC chip is carried on only one surface of said circuit substrate. The adhesive label further comprises an adhesive layer on the data carrier element containing said IC chip, wherein the circuit substrate, the data carrier element containing said IC chip, and the adhesive layer are sequentially laminated. In addition, the adhesive layer is in direct contact with the data carrier element containing the IC chip and is suitable for application to an article, and when the adhesive label is applied to an article, the adhesive layer comes into direct contact with the surface of the article. See, e.g., page 4, lines 5-17 and 26-31; the paragraph bridging pages 7-8; and Figure 1 of the specification

Independent claim 8 recites an adhesive label consisting of a circuit substrate, an entire data carrier element for a contactless data carrier system which is formed on one side of the circuit substrate, and an adhesive layer formed on the entire data carrier element, said entire data carrier element having antenna coils and an IC chip. See, e.g., page 4, lines 26-31; the paragraph bridging pages 7-8; and Figure 1 of the specification.

Independent claim 10 recites an adhesive label consisting of a circuit substrate, an entire data carrier element for a contactless data carrier system which is formed on one side of the circuit substrate, an adhesive layer formed on the entire data carrier element, and a surface layer provided on the circuit substrate surface that is on the reverse side to a surface carrying the entire data carrier element. In addition, the entire data carrier element has antenna coils and an IC chip.

See, e.g., page 4, lines 26-31; page 5, lines 4-5; the paragraph bridging pages 7-8; and Figure 2 of the specification.

Independent claim 12 recites an adhesive label consisting of a circuit substrate, an entire data carrier element for a contactless data carrier system, the data carrier element comprising an IC chip carried on one surface of the circuit substrate, and antenna coils separately formed on each surface of the circuit substrate and connected to each other by a through-hole to integrate both separately formed parts of said antenna coils to form the entire data carrier element, an adhesive layer formed on one surface carrying said IC chip and said separately formed part of the antenna coils, and a surface layer formed directly on the other of the separately formed part of the antenna coils without said IC chip. See, e.g., page 4, lines 26-31; page 5, lines 4-5; page 6, lines 2-21; and the paragraph bridging pages 7-8 of the specification.

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Appellant seeks review and reversal of the Examiner's rejection of claims 1, 2, and 4-14 under 35 U.S.C. § 103(a) based on Tanimura et al. (U.S. Patent No. 6,065,701) (hereinafter "Tanimura") in view of Applicants' alleged admission.

The Examiner cited Tanimura for its disclosure of "a label comprising an integrated circuit." See Office Action of August 15, 2006, page 2. The Examiner pointed out those places in Tanimura where, allegedly, the claimed elements of the present invention may be found. However, the Examiner noted that "Tanimura lacks a teaching that the adhesive layer 17 is in direct contact with the IC chip." See Office Action of August 15, 2006, page 2.

To provide the adhesive layer in direct contact with the IC chip missing from Tanimura, the Examiner cited Appellant's alleged "admission" that "it is known art that the data carrier element containing IC chip can be formed on either side of substrate and functions equivalently." See Office Action of August 15, 2006, page 3. The Examiner then took the position that it would have been obvious to arrange the IC chip in Tanimura such that the IC chip was in direct contact with the adhesive layer, thereby allegedly rendering Appellant's claimed invention obvious.

**VII. ARGUMENT**

Appellant respectfully submits that the outstanding § 103 rejection should be reversed because, as Appellant will show:

- (1) There has been no “admission” that renders the present claims obvious. It is only the Examiner’s misguided reading of Appellant’s specification that yields Appellant’s so-called “admission.” When the relevant portion of Applicant’s specification is read reasonably, it is clear that the alleged “admission” is nothing of the sort;
- (2) Even taking, *arguendo*, the Examiner’s characterization of the reference and the present specification at face value, the Examiner has not provided a proper *prima facie* case of obviousness, because all claim elements are not present in the “teachings” asserted by the Examiner; and
- (3) The presently claimed invention is unexpectedly superior vis-a-vis the cited prior art.

*There has been no “admission” that renders the present claims obvious*  
Appellant’s alleged “admission,” when fairly characterized, is that a part of an electric circuit may be formed on each side of a circuit substrate, and when those parts are connected to form an electric circuit, they may be integrated into a sole contactless data carrier element, where

the electric circuit spans both sides of the substrate. Specifically, the passage at issue in the specification (cited by the Examiner), describes the prior art, stating that:

“the contactless data carrier element may be prepared by separately forming a part of an electric circuit on each side of the circuit substrate 1, and connecting one to other via a through-hole, to thus integrate the separately formed parts into a sole contactless data carrier element” (page 2, lines 2-7 of the present specification).

The above passage could not be clearer. In the embodiment described, the electric circuit, or data carrier element, is formed on both sides of the circuit substrate. This is because connecting the different segments of the electric circuit on different sides of the substrate to one another would form a circuit that is, by definition, present on both sides of the circuit substrate.

Conversely, the present claims recite that the IC or the data carrier element is formed on one surface or side of the circuit substrate.

The Examiner appears to have ignored the plain meaning of the above passage. Instead of reasonably reading the passage, the Examiner has somehow interpreted the passage to mean that “it is known art that the data carrier element containing IC chip can be formed on either side of substrate and functions equivalently (sic).” See Office Action of August 15, 2006, page 3. From this, the Examiner asserts that it would have been obvious to form the data carrier element of Tanimura according to the present claims, even though Tanimura discloses and teaches that

the data carrier element is formed on the surface of the substrate opposite that of the present claims.

The Examiner apparently defends his position by arguing that an “electronic part” is somehow the same thing as the “electric circuit” described in the passage above, and apparently that any “electronic part” on a side of a substrate is the same as an “electric circuit.” See Office Action of August 15, 2006, page 4, responding to Applicant’s Remarks of July 3, 2006, pages 2-3. This argument has been maintained despite the fact that Appellant, permitted to be their own lexicographer, has pointed out to the Examiner 19 separate instances in the specification where the phrases “electronic part” and “electric circuit” are clearly defined separately. See Amendment of December 30, 2005, at pages 9-13. Accordingly, Appellant respectfully submits that the Examiner’s position of an alleged “admission” by Appellant is untenable.

The apparent piecemeal reading of the specification has been further evidenced by the Examiner’s assertions that he was not relying upon Figure 3 of the specification, even though that is the very figure that is described by the passage in the specification that the Examiner cites as supplying an “admission.” See Office Action of August 15, 2006, page 4; Office Action of March 3, 2006, page 5. Appellant respectfully submits that the Examiner cannot rely upon a sentence within the specification as the basis for an alleged “admission” but then ignore the subject matter that the sentence actually describes.

Appellant respectfully submits that the Examiner's characterization of Appellant's alleged "admission" is incorrect for at least two reasons. First, nowhere does Appellant state that it was known in the art to laminate part of an data carrier next to the recited adhesive layer. Second, nowhere has Appellant stated that it is known in the art to place the entire data carrier or the IC chip next to the recited adhesive layer, as recited in the claims.

In view of the above, Appellant respectfully submits that there has been no "admission" that renders the present claims obvious.

Accordingly, Appellant respectfully requests the reversal of the § 103 rejection to the extent that it is based upon the alleged "admission."

*The Examiner did not present a proper *prima facie* case of obviousness*

Appellant initially respectfully submits that the Examiner has not fully responded to Appellant's arguments set forth in the Response of July 3, 2006. The Examiner apparently misunderstood, and as a result, mischaracterized Appellant's arguments with respect to the adhesive layer, stating that "there is no "adhesive layer 5" present in Tanimura's invention," when it is clear that Appellant was not referring to any adhesive layer 5 in Tanimura, but was rather describing the adhesive layer 5 as it is described in the present specification. See the Office Action of August 15, 2006, at page 4. Thus, the Examiner has not responded to Appellant's argument that there is no indication in the above passage in the present specification

that the adhesive layer 5 can be rearranged in such a manner that would render Appellant's invention obvious.

With respect to a *prima facie* case of obviousness, Appellant respectfully notes that in determining obviousness, the claimed subject matter must be considered as a whole without the benefit of hindsight, and the claims must be considered in their entirety. *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1551 (Fed. Cir. 1983). The analysis begins in the text of section 103 with the phrase "at the time the invention was made." *In re Dembiczak*, 175 F.3d 994, 998 (Fed. Cir. 1999). The quoted phrase in § 103 clarifies that a determination of obviousness cannot rely on a hindsight reconstruction of the claimed invention. *Id.* To protect against a hindsight reconstruction, the Federal Circuit has clarified that there must be a suggestion or motivation to combine prior art references. *See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); *In re Rouffet*, 149 F.3d 1350, 1359 (Fed. Cir. 1998).

Appellant respectfully submits (1) that the subject matter as a whole is not disclosed or suggested in the prior art; and (2) that there is no cited motivation to alter the teachings of Tanimura in any way that could render the present claims obvious.

Appellant respectfully submits that the subject matter as a whole is not disclosed in the prior art because the cited prior art does not disclose an IC chip or a data carrier being formed on a surface of a substrate and then coated with adhesive. As the Examiner admits, Tanimura does not disclose or suggest that the IC chip is in direct contact with the adhesive layer therein. See Office Action of August 15, 2006, page 2. As Appellant has previously discussed, the alleged “admission” does not exist, and therefore does not provide this claim element that is clearly missing from Tanimura. Therefore, nowhere in the cited prior art is there any disclosure or teaching that the IC chip or the data carrier are in contact with the recited adhesive, as recited by the present claims.

Appellant also respectfully submits that there is no motivation to alter the disclosure of Tanimura in such a manner that one of ordinary skill in the art would arrive at the presently claimed invention. Because there has been no “admission,” as discussed above, the Examiner’s position that the presently claimed invention is merely an equivalent, and therefore *prima facie* obvious, is untrue. In the absence of Appellant’s alleged “admission,” there is nothing in the Office Action that would provide the motivation required to alter the disclosure of Tanimura in any manner that could render obvious Appellant’s claimed invention.

Accordingly, Appellant respectfully submits that not only are all of the presently claimed elements not present in the cited art, but that there is also insufficient motivation to alter the teachings of Tanimura in any manner that could render obvious Appellant’s claimed invention.

The above arguments pertain to all claims. However, in addition, Appellant notes with particular reference to each of independent claims 8 and 10, that the citation of Appellant's "admission" (and hence Appellant's Figure 3) is particularly off point. Each of independent claims 8 and 10 specifically recite an adhesive label consisting of, among other things, an entire data carrier element for a contactless data carrier system which is formed on one side of the circuit substrate and which has and an adhesive layer formed on the entire data carrier element. Appellant's alleged "admission," which describes Figure 3, discloses that the prior art, even if it does disclose an entire data carrier element formed on one side of a circuit substrate, does not disclose an adhesive layer formed on the entire data carrier element. Appellant respectfully submits that this element is not present in the cited prior art, nor even in Appellant's alleged "admission." Nor has there been any indication regarding any motivation of how to alter the prior art to arrive at the presently claimed invention. Therefore, Appellant respectfully submits that independent claims 8 and 10 are not anticipated or rendered obvious by the cited prior art for these reasons, in addition to those reasons set forth elsewhere in this Brief.

Appellant accordingly respectfully requests that the Board reverse the rejection of claims 1, 2, and 4-14 based upon Tanimura in view of Appellant's "admission."

*Unexpected superiority of the presently claimed invention*

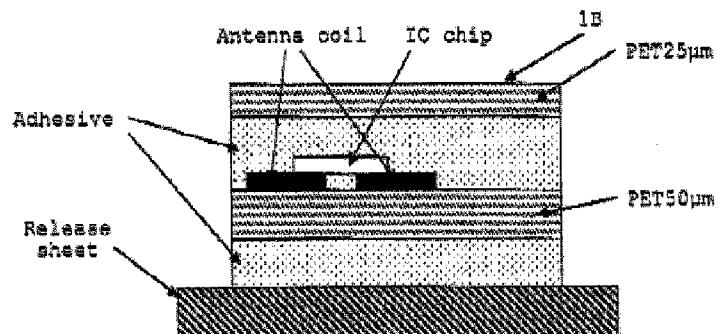
Appellant respectfully submits that the presently claimed invention differs from and is unexpectedly superior to the cited Tanimura reference upon which the prior art rejection is based.

Below, Appellant addresses in more detail the relationship of the testing reported in the Declaration Under 37 C.F.R. § 1.132 by Mr. Yamakage with respect to the closest prior art.

Relationship to the closest prior art

As shown in "Fig. B (Comparative Experiments A - C)" on page 4 of Mr. Yamakage's Declaration,

Fig. B (Comparative Experiments A-C)



the PET circuit substrate (thickness = 50  $\mu\text{m}$ ) of each of the three adhesive labels prepared in the Comparative Experiments A to C carries the contactless data carrier element on the surface opposite to the surface carrying the adhesive layer which comes in direct contact with a surface of an article when the adhesive label is applied to the article. That is, in the three adhesive labels prepared in the Comparative Experiments A to C, the contactless data carrier element is carried on the surface on the side of the outermost surface 1B for printing, with respect to the PET circuit substrate.

In a contactless data carrier element, a portion containing an IC chip is thicker than other portions, and thus, the contactless data carrier element has an irregular or uneven thickness structure. To obtain good printability in an adhesive label containing a contactless data carrier element, an irregular or uneven structure on an outermost surface for printing must be minimized.

As shown in "Table 1" (reproduced below for the Panel's convenience) on page 5 of Mr. Yamakage's Declaration, when the printability on the outermost surface 1B was evaluated in the Comparative Experiments A to C, the best printability was obtained in the Comparative Experiment C, wherein the acrylic pressure sensitive adhesive layer which covered the contactless data carrier element and was provided between the PET circuit substrate and the surface PET layer (thickness - 25  $\mu\text{m}$ ) for printing had the largest thickness. This is because the thickness between the PET circuit substrate and the surface PET layer must be increased to

reduce any influence of irregular or uneven structure of the contactless data carrier element carried on the surface on the side of the outermost surface 1B for printing, with respect to the PET circuit substrate.

Table 1

	Printability	Thickness [μm]		
		Adhesive layer containing element	Portion containing IC chip	Portion without IC chip
Experiment A	B	26	335	179
Comparative Experiment A	C	46	373	222
Comparative Experiment B	C	124	441	293
Comparative Experiment C	A	228	494	406

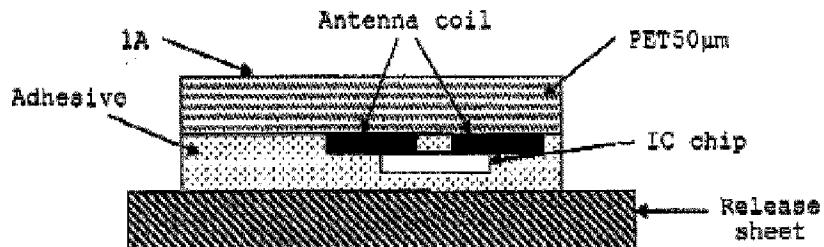
Mr. Yamakage's Declaration shows that when the contactless data carrier element is carried on the surface on the side of the outermost surface for printing with respect to the PET circuit substrate, as in the closest prior art (the Tanimura reference), it is necessary to increase the thickness between the circuit substrate and the surface layer, whereby any influence of irregular or uneven structure of the contactless data carrier element is reduced, and consequently the entire thickness of an adhesive label is increased.

As shown in Fig. 2 of the Tanimura reference (the closest prior art), the polyimide substrate 16 carries the IC chip 20 and the antenna wiring 30 on the surface opposite to the surface carrying the adhesive layer 17 which comes into direct contact with a surface of a

cassette. That is, in the embodiment shown in Fig. 2 of the Tanimura reference, the contactless data carrier element is carried on the surface on the side of the outermost coated layer 12 for printing, with respect to the polyimide substrate 16. Therefore, it is apparent from the results shown in the Comparative Experiments A, B, and C of Mr. Yamakage's Declaration that the thickness between the polyimide substrate 16 and the coated layer 12 must be increased in the embodiment shown in Fig. 2 of the Tanimura reference, and consequently the entire thickness of the embodiment shown in Fig. 2 of the Tanimura reference is increased.

On the contrary, as shown in "Fig. A (Experiment A)" on page 3 of Mr. Yamakage's Declaration,

Fig. A (Experiment A)



the PET circuit substrate (thickness = 50  $\mu\text{m}$ ) of the adhesive label prepared in the Experiment A according to the present invention carries the contactless data carrier element on the surface carrying the adhesive layer which comes in direct contact with the surface of an article when the adhesive label is applied to the article. That is, in the adhesive label prepared in the Experiment A according to the present invention, the contactless data carrier element is carried on the surface

opposite to the side of the outermost surface IA for printing, with respect to the PET circuit substrate.

As shown in "Table 1" (see above) of Mr. Yamakage's Declaration, printability sufficient from a practical standpoint can be obtained in the adhesive label prepared in the Experiment A wherein the entire thickness is thinnest.

Furthermore, the advantageous effects of the adhesive label according to the present invention are described at page 14 of the present specification.

Appellant respectfully submits that the Declaration evidence clearly shows the unexpected remarkable effects obtainable by the present invention over the closest prior art, viz., the Tanimura reference.

Appellant has shown that the outstanding § 103 rejection is deficient because (1) there has been no "admission" that renders the present claims obvious; (2) even taking, *arguendo*, the Examiner's characterization of the reference and the present specification at face value, the Examiner has not provided a proper *prima facie* case of obviousness, because all claim elements are not present in the "teachings" asserted by the Examiner; and (3) Appellant has shown that the presently claimed invention is unexpectedly superior vis-a-vis the cited prior art.

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No.: 09/830,605

Attorney Docket No.: Q64273

Accordingly, reversal of the outstanding § 103 rejection is respectfully requested.

Respectfully submitted,

  
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Date: April 16, 2007

**CLAIMS APPENDIX**

Claims on Appeal:

1. (previously presented): An adhesive label comprising

(1) a circuit substrate;

(2) an entire data carrier element for a contactless data carrier system containing an IC chip, said data carrier being carried on at least one surface of said circuit substrate, and said IC chip being carried on only one surface of said circuit substrate; and

(3) an adhesive layer on said data carrier element containing said IC chip,

wherein said circuit substrate, said data carrier element containing said IC chip, and said adhesive layer are sequentially laminated, and

    said adhesive layer is in direct contact with said data carrier element containing said IC chip and is suitable for application to an article, when said adhesive label is applied to an article, said adhesive layer comes into direct contact with the surface of the article.

2. (original): The adhesive label according to claim 1, wherein said adhesive layer is a pressure sensitive adhesive layer.

3. (canceled).

4. (previously presented): The adhesive label according to claim 1 or 2, wherein said entire data carrier element containing said IC chip is formed on one side of said circuit substrate, and said adhesive layer is formed on said entire data carrier element.

5. (previously presented): The adhesive label according to claim 1 or 2, wherein a surface layer is provided on a circuit substrate surface that is on the reverse side to a surface carrying said data carrier element containing said IC chip.

6. (previously presented): The adhesive label according to claim 1, wherein antenna coils of said data carrier element are separately formed on each surface of said circuit substrate and connected to each other by a through-hole to integrate both said antenna coils to form said entire data carrier element for said contactless data carrier system, said adhesive layer is formed on one surface carrying said antenna coils and said IC chip, and a surface layer is formed directly on the other surface carrying said separately formed antenna coils without said IC chip.

7. (previously presented): The adhesive label according to claim 4, wherein a surface layer is provided on a circuit substrate surface that is on the reverse side to a surface carrying said data carrier element containing said IC chip.

8. (previously presented): An adhesive label consisting of a circuit substrate, an entire data carrier element for a contactless data carrier system which is formed on one side of said circuit substrate, and an adhesive layer formed on said entire data carrier element, said entire data carrier element having antenna coils and an IC chip.

9. (previously presented): The adhesive label according to claim 8, wherein said adhesive layer is a double-coated adhesive layer.

10. (previously presented): An adhesive label consisting of a circuit substrate, an entire data carrier element for a contactless data carrier system which is formed on one side of said circuit substrate, an adhesive layer formed on said entire data carrier element, and a surface layer provided on the circuit substrate surface that is on the reverse side to a surface carrying said entire data carrier element, said entire data carrier element having antenna coils and an IC chip.

11. (previously presented): The adhesive label according to claim 10, wherein said adhesive layer is a double-coated adhesive layer.

12. (previously presented): An adhesive label consisting of a circuit substrate, an entire data carrier element for a contactless data carrier system, said data carrier element comprising an IC chip carried on one surface of said circuit substrate, and antenna coils separately formed on

each surface of said circuit substrate and connected to each other by a through-hole to integrate both separately formed parts of said antenna coils to form said entire data carrier element, an adhesive layer formed on one surface carrying said IC chip and said separately formed part of said antenna coils, and a surface layer formed directly on the other of said separately formed part of said antenna coils without said IC chip.

13. (previously presented): The adhesive label according to claim 12, wherein said adhesive layer is a double-coated adhesive layer.

14. (previously presented): The adhesive label according to claim 12, wherein said adhesive layer covering said data carrier element having said separately formed part of said antenna coils and said IC chip comes into direct contact with the surface of an article when said adhesive label is applied on said article.

15. (canceled).

**EVIDENCE APPENDIX:**

Pursuant to 37 C.F.R. § 41.37(c)(1)(ix), submitted herewith are copies of any evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 or any other evidence entered by the Examiner and relied upon by Appellant in the appeal.

Appellant submits herewith a copy of the Declaration Under 37 C.F.R. § 1.132, signed by Mr. Masateru Yamakage, originally submitted to the USPTO on July 3, 2006.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of  
Akira ICHIKAWA et al.  
Appn. No.: 09/830,605      Group Art Unit: 1771  
Filed: April 30, 2001  
For: ADHESIVE LABEL

DECLARATION UNDER 37 C.F.R. 1.132

Honorable Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

I, Masateru YAMAKAGE, citizen of Japan, do sincerely and solemnly declare:

THAT I am by profession a polymer chemist having earned a Bachelor's degree in organic polymer from Tokyo Polytechnic University in March 1990;

THAT I have been employed by Lintec Corporation, Tokyo, Japan, since April 1990, and from 1990 to 2004, I was engaged in research mainly in the field of adhesive labels, and from 2004, have been engaged in patent prosecutions in the Intellectual Properties Department;

THAT I am in charge of the above-identified U.S. Patent Application (referred to as "the present invention" hereinbelow) as a staff member of the Intellectual Properties Department and therefore, am completely familiar with the present invention;

THAT I have reviewed the Office Action of March 3, 2006 and understand that the Examiner has rejected claims 1, 2 and 4-14 under 35 U.S.C. §103(a) as being unpatentable over Tanimura et al. (US 6065701) in view of Applicants'

admission; and

THAT the following experiments were carried out under my direction and supervision.

#### EXPERIMENTS

##### (1) Experiment A

A copper foil (thickness = 35  $\mu\text{m}$ ) was adhered on a polyethylene terephthalate film (thickness= 50  $\mu\text{m}$ ; as the circuit substrate), and an electric circuit (an antenna coil) was formed by etching. An IC chip (thickness = 150  $\mu\text{m}$ ) was connected with the electric circuit by a flip chip bonding to form a contactless data carrier element on the circuit substrate.

Then, a layer (thickness = 26  $\mu\text{m}$ ) of an acrylic pressure sensitive adhesive was formed on a release sheet prepared by coating a glassine paper with a silicone resin. The acrylic pressure sensitive adhesive layer was stuck to the circuit substrate on the surface carrying the contactless data carrier element to prepare an adhesive label according to the present invention.

##### (2) Comparative Experiment A

A contactless data carrier element was formed on the circuit substrate, by the procedures same as those in the above Experiment A.

Then, a layer (thickness = 46  $\mu\text{m}$ ) of an acrylic pressure sensitive adhesive was formed on a polyethylene terephthalate film (thickness= 25  $\mu\text{m}$ ). The acrylic pressure sensitive adhesive layer was stuck to the circuit substrate on the surface carrying the contactless data carrier element.

Thereafter, a layer (thickness = 26  $\mu\text{m}$ ) of an acrylic pressure sensitive adhesive was formed on a release sheet prepared by coating a glassine paper with a silicone resin. The acrylic pressure sensitive adhesive layer was stuck to the circuit substrate on the reverse side of the surface carrying the contactless data carrier element to

prepare an adhesive label for comparison.

#### (3) Comparative Experiment B

Procedures of the above Comparative Experiment A were repeated except that, a layer (thickness = 124  $\mu\text{m}$ ) of an acrylic pressure sensitive adhesive was formed on the polyethylene terephthalate film (thickness= 25  $\mu\text{m}$ ), instead of the layer (thickness = 46  $\mu\text{m}$ ) of the acrylic pressure sensitive adhesive, to prepare an adhesive label for comparison.

#### (4) Comparative Experiment C

Procedures of the above Comparative Experiment A were repeated except that, a layer (thickness = 228  $\mu\text{m}$ ) of an acrylic pressure sensitive adhesive was formed on the polyethylene terephthalate film (thickness= 25  $\mu\text{m}$ ), instead of the layer (thickness = 46  $\mu\text{m}$ ) of the acrylic pressure sensitive adhesive, to prepare an adhesive label for comparison.

### STRUCTURES

Figure A schematically illustrates the sectional structure of the adhesive label prepared in the Experiment A.

Figure B schematically illustrates the sectional structure of each of the adhesive labels prepared in the Comparative Experiments A-C.

Fig. A (Experiment A)

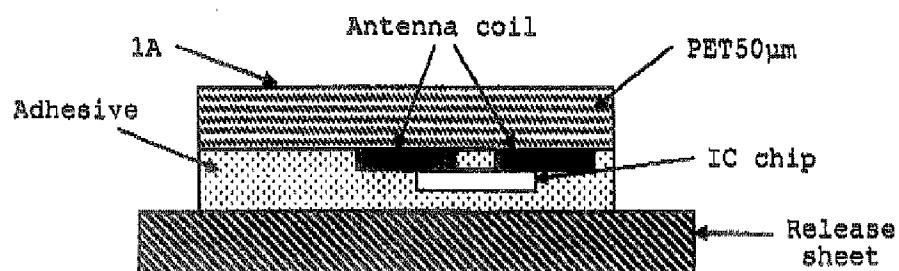
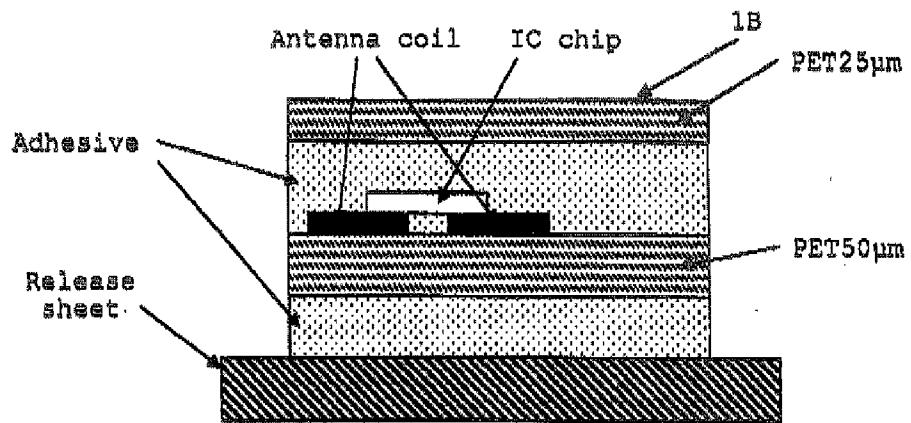


Fig. B (Comparative Experiments A-C)



#### EVALUATIONS

##### (1) Thicknesses

The thicknesses of the adhesive labels prepared in the Experiment A and the Comparative Experiments A-C were measured for the portion containing the IC chip and the portion not containing the IC chip, that is, the portion containing only the copper foil. The results are shown in Table 1.

##### (2) Printability

The adhesive labels prepared in the Experiment A and the Comparative Experiments A-C were printed by a heat transfer printer (manufactured by Zebra Co., Ltd.; 140XiIII). An ink ribbon used was B110C (manufactured by Ricoh Co. Ltd). The adhesive label prepared in the Experiment A was printed on the surface (1A; see Fig. 1) of the polyethylene terephthalate film (thickness= 50 µm) as the circuit substrate), whereas the adhesive labels prepared in the Comparative Experiments A-C were printed on the surface (1B; see Fig. 2) of the polyethylene terephthalate film (thickness= 25 µm). The evaluation was made from the standpoint of a defacing of the printing, distorted printing, and pin hole into three ratings as

follows:

A \*\*\* No defaced printing, no distorted printing, or no pin hole;

B \*\*\* No defaced printing, no distorted printing, but a pin hole partially occurred;

C \*\*\* The surface portion which was protruded due to the presence of the IC chip was not printed at all.

### (3) Results

The results are shown in Table 1.

Table 1

	Printability	Thickness [μm]		
		Adhesive layer containing element	Portion containing IC chip	Portion without IC chip
Experiment A	B	26	335	179
Comparative Experiment A	C	46	373	222
Comparative Experiment B	C	124	441	293
Comparative Experiment C	A	228	494	406

### DISCUSSION

A good printing was obtained without a substantial influence of an irregular or uneven structure due to the antenna coil and particularly the IC chip, in the adhesive label according to the present invention.

I, the undersigned declarant, declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001, of Title 18, of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Singed this 12th day of June , 2006.

M. Yamakage  
Masateru YAMAKAGE

APPEAL BRIEF UNDER 37 C.F.R. § 41.37  
U.S. Application No.: 09/830,605

Attorney Docket No.: Q64273

**RELATED PROCEEDINGS APPENDIX**

As mentioned in Section II, Appellants, Appellants' legal representative and the Assignee of this application are not aware of any other appeals or interferences that will directly affect, or be affected by, or have a bearing on the Board's decision in the pending appeal.